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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,384

01/28/2008

Naoki Sumi

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09/14/2010

LIU & LIU

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LOS ANGELES, CA 90071

EXAMINER

MALDONADO, JULIO J

ART UNIT

PAPER NUMBER

2823

NOTIFICATION DATE

DELIVERY MODE

09/14/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/540,384	Applicant(s) SUMI, NAOKI	
	Examiner JULIO J. MALDONADO	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14-17, 19-26 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 18 and 27-29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08/09/2007</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 14-32 in the reply filed on 08/30/2010 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 14-16, 19-21, 23, 24 and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuda et al. (U.S. 6,262,783 B1, hereinafter Tsuda).

In reference to claims 14 and 32, Tsuda (Figs.2 and 3A-5D) discloses an electronic device including a first base (201, 203, 208, 210, 213, 214) comprising a first conductive portion (213) and a second conductive portion (214), said first conductive portion (213) containing a first metal or metal compound having a first equilibrium electrode potential, said second conductive portion (214) being electrically connected to said first conductive portion (213) and containing a second metal or metal compound having a second equilibrium electrode potential; an underlying layer (420, 422) formed on said first base (201, 203, 208, 210, 213, 214); and a reflective portion (423) formed on a surface of said underlying layer (420, 422), said reflective portion (423) comprising a plurality of projections of recesses; wherein said underlying layer (420, 422)

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comprises coating portions (420) provided at positions corresponding to said plurality of projections or recesses; and an underlying layer main portion (422) formed using photosensitive material, said underlying layer main portion (422) covering said coating portions (420) (Tsuda, column 6, line 28 – column 10, 44).

In reference to claim 15, Tsuda discloses wherein said first base comprises a supporting member; said first conductive portion formed on said supporting member; and said second conductive portion formed so as to lie on said first conductive portion (Tsuda, column 6, lines 20 - 27 and column 8, lines 25 - 52).

In reference to claim 16, Tsuda discloses wherein said first conductive portion is formed on an insulating film (Tsuda, column 8, lines 6 – 24).

In reference to claim 19, Tsuda discloses a first conductive portion containing a first metal (213) having a first equilibrium electrode potential; a second conductive portion (214) containing a second metal compound having a second equilibrium potential, said second conductive portion (214) being electrically connected to said first conductive portion (213); and a sacrificial electrode (423) electrically connected to said first (213) and second (214) conductive portions (Tsuda, column 6, line 28 – column 10, 44).

In reference to claim 20, Tsuda discloses wherein said sacrificial electrode is directly connected to one of said first and second conductive portions.

In reference to claim 23, Tsuda discloses wherein said second conductive portion lies on the top of said first conductive portion (Tsuda, column 9, lines 47 – 54).

In reference to claim 24, Tsuda discloses wherein a combination of said first and second conductive portions form at least part of a source electrode (Tsuda, column 7, line 45 – column 8, line 23).

In reference to claim 30, Tsuda discloses wherein said electronic device comprises a third conductive portion (203), and wherein said first conductive portion (213) covers a part of said third conductive portion (203) (Tsuda, see Fig.3H).

In reference to claim 31, Tsuda discloses wherein said third conductive portion is at least part of a gate terminal (Tsuda, column 6, lines 28 – 48).

4. Claims 19, 20, 22, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kataoka et al. (U.S. 6,266,111 B1, hereinafter Kataoka).

In reference to claims 19, 22, 25 and 26, Kataoka (Fig.5) discloses an electronic device comprising a metal electrode (51) made of molybdenum; an aluminum layer (57) electrically connected to said metal electrode (51) and provided within a contact hole; and a sacrificial electrode (13) made of aluminum electrically connected to said first (51) and second (57) conductive portions (Kataoka, column 6, lines 7 – 12 and column 7, lines 19 – 61).

In reference to claim 20, Kataoka discloses wherein said sacrificial electrode is directly connected to the second conductive portion (Kataoka, see Fig. 5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuda ('783) as applied to claims 14-16, 19-21, 23, 24 and 30-32 above, and further in view of the following arguments.

Tsuda substantially discloses all aspects of the invention but fails to expressly disclose wherein said sacrificial electrode and one of said first and second conductive portions are integrally formed.

Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., In re Garnero, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA

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1979). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)

7. Claims 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka et al. (U.S. 6,266,111 B1, hereinafter Kataoka) in view of Tsuda ('783).

In reference to claims 14, 15 and 17, Kataoka (Fig.5) discloses an electronic device comprising a substrate (2); a metal electrode (51) made of molybdenum; an insulating layer (59) made of silicon dioxide formed on said metal electrode (51), wherein said insulating layer (59) further comprises a contact hole; an aluminum layer (57) electrically connected to said metal electrode (51) and provided within said contact hole; an underlying layer (11, 12) formed on said insulating layer (59); and a reflective portion (13) formed on a surface of said underlying layer, said reflective portion (13) comprising a plurality of projections or recesses and is made of aluminum; wherein said underlying layer comprises coating portions (11) made of a resin material and provided at positions corresponding to said plurality of projections or recesses; and an underlying layer main portion (12) made of a resin material, said underlying main portion (12) covering said coating portions (11) (Kataoka, column 6, lines 7 – 12 and column 7, lines 19 – 61).

Kataoka fails to expressly disclose wherein said underlying layer main portion is formed using photosensitive material.

However, Tsuda (Figs.2 and 3A-5D) discloses an electronic device including an underlying layer (420, 422) formed on a first base (201, 203, 208, 210, 213, 214); and a reflective portion (423) formed on a surface of said underlying layer (420, 422), said reflective portion (423) comprising a plurality of projections or recesses; wherein said underlying layer (420, 422) comprises coating portions (420) provided at positions corresponding to said plurality of projections or recesses; and an underlying layer main portion (422) formed using photosensitive material, said underlying layer main portion (422) covering said coating portions (420) (Tsuda, column 6, line 28 – column 10, 44).

It would have been within the scope of one of ordinary skill in the art to combine the teachings of Kataoka and Tsuda to enable the disclosed underlying layer of Kataoka to be made according to the materials disclosed in Tsuda because one of ordinary skill in the art would have been motivated to look to analogous art teaching alternative suitable or useful materials for the disclosed underlying layer main portion and art recognized suitability for an intended purpose has been recognized to be motivation to combine (MPEP 2144.07), and furthermore, because the fact that the claimed combination of elements was “obvious to try” might show that such combination was obvious under 35 U.S.C. §103, since, if there is design need or market pressure to solve problem, and there are finite number of identified, predictable solutions, person of ordinary skill in art has good reason to pursue known options within his or her technical grasp, and if this leads to anticipated success, it is likely product of ordinary skill and common sense, not innovation (KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007)).

Allowable Subject Matter

8. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose wherein said coating portion has chromium molybdenum oxide, as disclosed in claim 18.

10. Claims 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose wherein said first conductive portion is at least part of a gate terminal, and wherein said second conductive portion is at least part of a gate bus, as disclosed in claim 27.

12. Claim 28, and claims depending from claim 28, that is, claim 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose wherein said first conductive portion part

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of a source terminal, and wherein said second conductive portion is at least part of a gate electrode of an ESD transistor, as disclosed in claim 27.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JULIO J. MALDONADO whose telephone number is (571)272-1864. The examiner can normally be reached on Mon-Fri, 8:00 A.M.-4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571)-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julio J. Maldonado
Primary Examiner
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Primary Examiner, Art Unit 2823